

Solid Waste Advisory Committee (SWAC) Meeting Summary and Handouts October 25, 2007

Disaster Debris Management Planning Update

John Fischer, MassDEP, reported that two tools to help local government officials plan for disaster debris management were released in September and October 2007. Both documents — *Disaster Debris Management Planning: An Introductory Guide for Local Government Officials*, and *Disaster Debris Management Plan Checklist* — are posted on MassDEP's website at: <http://www.mass.gov/dep/recycle/laws/policies.htm#sw>.

MassDEP is continuing to work with the Massachusetts Emergency Management Agency (MEMA) to finalize a revised state Disaster Debris Management Plan, which is an annex to the Massachusetts Comprehensive Emergency Management Plan. MassDEP and MEMA hope to complete this plan in early 2008. MassDEP and MEMA also are working together to develop training sessions on disaster debris planning for local government officials, tentatively planned for spring 2008.

For more information on disaster debris planning, please contact Gretchen Brewer at Gretchen.brewer@state.ma.us or Martha Senn at Martha.senn@state.ma.us.

Mercury Subcommittee Report-Back

Tina Klein, MassDEP, reviewed proposed guidance that MassDEP is drafting for solid waste and recycling facilities on managing mercury products in compliance with the Mercury Management Act (MMA). Participants discussed the proposed guidance and asked several questions about the proposed approach. The latest drafts of these two proposed guidance documents are attached at the end of these meeting notes.

Tina also gave a preliminary review of MassDEP's proposed education and outreach plan for mercury-containing products covered under the Mercury Management Act. Education and outreach suggestions from attendees included:

- There is a need for improved statewide education for generators – people have no idea of what mercury-containing products are and how to manage them
- MassDEP should work with the Ad Council to place ads and develop public service announcements
- One message should be: “Remove Button Batteries” before disposing of products
- Municipal waste combustors are conducting some outreach and advertising now as part of mercury material separation plans and there may be an opportunity to leverage and partner on this outreach
- MassDEP should communicate to businesses and trade associations, including developing information resources that haulers can share with their customers
- Point-of-sale signs are a good way to reach consumers of mercury-containing products

The proposed outreach and education plan is also attached at the end of these notes. Please forward additional suggestions or questions to Tina Klein at tina.klein@state.ma.us or Lori Segall at lori.segall@state.ma.us.

NSWMA Requested Regulation Change - Layovers of C&D Loads

Steve Richmond, representing the National Solid Waste Management Association, presented a request that MassDEP consider a policy or regulatory change to address a transportation logistics issue faced by construction and demolition debris recycling facilities. He noted that the site assignment regulations contain an exemption for “occasional solid waste vehicle layover” provided that materials are not unloaded or transferred. C&D recycling facilities and haulers would like the flexibility to be able to routinely store closed containers overnight at locations such as hauling vehicle yards to be able to combine containers onto a single truck to ship more efficiently to recycling facilities. Steve and several representatives of hauling companies and recycling facilities in attendance argued that this flexibility is critical to being able to haul materials to their facilities cost-effectively and limit transportation costs and impacts. They also explained that MassDEP’s hazardous waste transporter rules provide this flexibility for hazardous waste shipments and suggested it does not make sense to require more stringent procedures for C&D recycling feedstock than for hazardous wastes. Steve felt that MassDEP could authorize this activity either by issuing a policy under the existing rule or by regulatory change.

The main points of NSWMA’s proposal are:

- To allow layovers of up to 72 hours at non-site assigned transportation related locations on a routine basis
- Only allow for C&D materials being sent to C&D recyclers (these are inert materials that should not present nuisance concerns if managed properly)
- Require that loads will be in tarped or covered containers
- Limit of no more than 10 containers or roll-offs at a time could be held at one location

Jamie Doucett, MassDEP, noted that the exemption for “occasional solid waste vehicle layover” was written in 1994 to deal with an unusual event where a facility closes before a load can be delivered. MassDEP believes that the regulations as written do not allow for this flexibility and that a regulation change would be necessary to allow this as a routine practice. MassDEP has concerns that allowing for routine layover could be abused and lead to accumulation of waste materials at non-regulated facilities.

Steve Changaris observed that in 1994 the C&D industry didn’t exist as it does today. Now the industry has regional facilities, transportation costs are much higher, and the need for layovers is no longer occasional. He also encouraged helping legal operations operate more efficiently to avoid competition from illegal operators. He urged that this change either be implemented as a policy change under existing regulations, or be implemented as an expedited proposed regulation revision.

Several haulers elaborated on the problem C&D haulers are facing: that small towns often order boxes containing materials to be collected and off the street at the end of each day, but that no places are open where the boxes could be sent. Haulers pointed out that this same issue exists for hauling of municipal solid waste.

Jamie Doucett explained that MassDEP brought this issue to the SWAC meeting to frame the issue, impacts, and concerns and emphasized that MassDEP is not proposing or developing any regulation revisions at this time. MassDEP will have follow-up internal discussions about this proposal, and respond to NSWMA following those discussions.

Jan Ameen of the Franklin County Solid Waste Management District raised a related issue about the management of C&D fines and residuals and concerns over levels of contaminants such as arsenic and lead in those materials. Jan had requested that this topic be placed on a previous SWAC meeting agenda and reiterated this request.

John Fischer stated that MassDEP has hired a consultant to report on the management of C&D materials, particularly wood, by the C&D Summit scheduled for January 2008. Jan expressed concern that the Summit would not be the right forum to discuss these issues and that this discussion would be better suited for a SWAC meeting. John Fischer will follow up on this issue with others at MassDEP to determine how to proceed regarding these concerns.

“Zero Waste” Discussion – Where Should Massachusetts Be Heading?

Barbara Kwetz, MassDEP, explained that MassDEP is beginning to think about developing a new Solid Waste Master Plan that would incorporate new developments and opportunities in energy, producer responsibility, and diversion options. MassDEP is considering framing these issues from a zero waste perspective. Barbara invited initial thoughts from attendees on what a zero waste plan would mean for Massachusetts. Attendees had the following suggestions:

- Should emphasize producer responsibility, including product development and design
- Need to consider management capacity shortfalls and project infrastructure needs and opportunities including potential for alternative energy conversion technologies
- In-state management of waste is better than export from an environmental and climate change perspective
- MassDEP should work with local communities, boards of health, and the solid waste industry to address facility site assignment and permitting issues
- It is important to understand and be clear what we really mean by the concept of zero waste
- To affect consumption and production meaningfully, we would need to change market price signals for materials and products
- Los Angeles is in the midst of developing a zero waste plan that is relying on extensive community-based outreach and dialogue to develop a community-based constituency

Steve Changaris, SWANA MA Chapter, reported that he had just recently made a presentation on the overall environmental footprint of the solid waste and recycling industry and will forward that information to MassDEP.

Shawn Worster, who is working on the Zero Waste Plan for Los Angeles, agreed to share additional information on that work with MassDEP.

MassDEP's work on this topic is just beginning and will be discussed more at upcoming SWAC meetings.

Next SWAC Meeting

The next SWAC meeting will be Thursday, January 24, 2008, 1:00 – 3:30 PM at MassDEP, One Winter Street in Boston.

Please see the following pages for meeting handouts related to the Mercury Management Act.

**Guidance for Facility Operators on Handling Products Containing Mercury
at Permitted Solid Waste Facilities
Effective May 1, 2008 (TBD)**

The Massachusetts Mercury Management Act prohibits the disposal of products containing mercury in solid waste. MassDEP regulations adopted to implement this law (310 CMR 76.00) specify how end-of-life mercury-added products must be managed:

- End-of-life mercury-added products that are "hazardous waste" must be managed as hazardous waste in accordance with 310 CMR 30.000.
- End-of-life mercury-added products that are "universal waste" may be managed as universal wastes in accordance with 310 CMR 30.1000.
- End-of-life mercury-added products that are not hazardous waste must be:
 - Separated from solid waste,
 - Handled and stored to minimize breakage and release of mercury,
 - Recycled to reclaim the mercury.

Regulations at 310 CMR 19.130 and 310 CMR 19.207 have been amended to require permitted solid waste facilities to implement Operation and Maintenance ("O&M") procedures for managing products containing mercury. The management procedures are established in 310 CMR 76.00 and further described in this guidance.

Facilities will be required to incorporate the procedures for managing mercury-added products into their O&M plans upon the effective date of the final regulations. Revised facility O&M plans and permit conditions will be updated and incorporated into the facility's permit when the permit is renewed. Alternatively, a facility may choose to file a permit modification with MassDEP to update an O&M plan in order to demonstrate compliance with the regulatory requirements for managing mercury-added products. The Department reserves the right to require a facility to file a permit modification to ensure compliance with the updated regulations.

*Please note that mercury-added products **have not** been added to the waste ban list in 310 CMR 19.017. Therefore, facilities do not need to update their waste ban plans. Comprehensive load inspections and failed load logs are not required.*

General guidance: Products containing mercury must be separated and stored separately from solid waste and the mercury must be recycled. In order to reduce recycling and disposal costs, solid waste facility staff may separate a component containing mercury (e.g., switches, lamps or batteries) from a larger product, or may choose to recycle the entire product. However, please note that glass ampoules removed from products, such as thermostats, must be handled as hazardous waste.

All mercury items set aside at the facility must be sent to a facility that properly manages mercury components.

Specific guidance for common products: There is a wide range of products that contain mercury. Readily identifiable and recoverable mercury-added products need to be separated for recycling when safe to do so. MassDEP provides guidance on how to manage common mercury-added products below:

Appliances or White Goods (e.g., ovens and chest freezers) – Separate from the load in accordance with your waste ban plan. If the appliance has a mercury switch or thermocouple, remove the device and place it in a Universal Waste bucket or contract with someone to remove the mercury component before the appliance is crushed or shredded at recycling facility.

Bilge or sump pump – if the pump has a tethered float switch, clip the switch off and place it in Universal Waste bucket. The motor can be recycled or disposed as trash.

Electronic devices with backlit screens (e.g., laptops and flat panel screens) – Separate from the load and contract with an electronics recycler that properly manages the mercury components.

Mercury added lamps (e.g., fluorescent lamps)

Individual Broken – no action required; handle with solid waste

Individual Intact – attempt to remove if safe to do so and handle as universal waste

Multiple lamps likely from the same generator – try to find out where the load came from, and contact the Mercury Hotline with as much of the following information as possible: generator name and location, type of truck and/or container, truck number(s), hauler. If the lamps are broken, no separation is required. If lamps are intact, attempt to remove if safe to do so and handle as universal waste.

Products with button cell batteries (e.g., watches, calculators, small flashing toys) – ***when readily identifiable and retrievable, separate for recycling***

Sphygmomanometer (blood pressure cuff) – pull off the load and place in Universal Waste bucket

Thermostat – remove and place in Universal Waste bucket.

For More Information:

- Mercury recycling facilities in the northeastern United States are listed on MassDEP's website: <http://www.mass.gov/dep/toxics/stypes/flampbiz.htm>
- Handling of universal waste, please refer to the fact sheet on MassDEP's website: <http://www.mass.gov/dep/recycle/hazardous/univrule.doc>.
- Guidance on cleaning up mercury spills: [placeholder for link]
- Guidance on cleaning up broken fluorescent lamps: [placeholder for link]

**Guidance for Operators on Handling Products Containing Mercury
at Conditionally Exempt Recycling Operations
Effective May 1, 2008 (TBD)**

The Massachusetts Mercury Management Act prohibits the disposal of products containing mercury in solid waste. MassDEP regulations adopted to implement this law (310 CMR Chapter 76) specify how end-of-life mercury-added products must be managed. MassDEP is planning a campaign to educate Massachusetts residents about the disposal prohibition.

EXAMPLES OF PRODUCTS CONTAINING MERCURY

<u>Hazardous Waste</u> ¹	Non-hazardous Waste Mercury-Added Products
<ul style="list-style-type: none"> ○ Glass ampoules of mercury removed from devices ○ Bilge pumps and sump pumps (some contain mercury switches) ○ Button batteries ○ Electrical switches ○ Elemental mercury² ○ Neon lamps and some fluorescent lamps, such as 4ft straight tubes, u-tubes, circular ○ Sphygmomanometers • Thermometers • Thermostats ○ Tilt switches and mercury thermocouples removed from appliances/ white goods 	<ul style="list-style-type: none"> • Green cap fluorescent lamps and low mercury compact fluorescent lamps (CFLs) • Electronic devices with screens that are backlit using a fluorescent lamp, such as: <ul style="list-style-type: none"> - Flat panel computer monitors - Flat panel TVs - Handheld gaming devices - Portable DVD players • Some appliances/white goods such as: <ul style="list-style-type: none"> - Gas ovens with mercury thermocouple - Chest freezers with tilt switches in lid • Toys containing button cell batteries that are not designed to be removed by the user/parent
<p>¹ Bolded items may be managed as universal waste</p> <p>² Elemental mercury is not covered by the Mercury Management Act or by 310 CMR 76.00 but is mentioned here to remind facilities that it is hazardous waste</p>	

General Requirements:

- End-of-life mercury-added products that are "hazardous waste" must be managed as hazardous waste in accordance with 310 CMR 30.000.
- End-of-life mercury-added products that are "universal waste" may be managed as universal wastes in accordance with 310 CMR 30.1000.
- End-of-life mercury-added products that are not hazardous waste must be:
- Separated from solid waste,
- Handled and stored to minimize breakage and release of mercury,
- Recycled to reclaim the mercury.

Guidance on Handling Specific Mercury-Added Products:

Appliances or White Goods (e.g., ovens and chest freezers) – If the appliance has a mercury switch or thermocouple, remove the device and place it in a Universal Waste bucket, or contract with someone who will remove the mercury added component before it is crushed or shredded at a recycling facility.

Bilge or sump pump – if the pump has a tethered float switch, clip the switch off and place it in Universal Waste bucket. The motor can be recycled or disposed as trash.

Electronic devices with backlit screens (e.g., laptops and flat panel screens) – Place with electronics and contract with an electronics recycler that properly manages the mercury components.

Mercury- added lamps (e.g., fluorescent lamps)

Broken – place in glass jar with metal screw top lid and send for recycling. If mercury added lamp breaks on site, sweep up the pieces and place in a jar with a screw top lid. Ventilate any indoor area. (See MassDEP guidance on cleaning up broken lamps)

Intact – place in Universal Waste container for recycling (including your facility's own fluorescent lamps)

Products containing button cell batteries

Removable (e.g., small electronic game or toy)– remove button battery and put battery in container for recycling

Non-removable (e.g., flashing toy or novelty) – dispose as solid waste, unless it has another hazardous component or characteristic. MassDEP has determined that there is no feasible recycling alternative, at this time.

Sphygmomanometer (blood pressure cuff) - place in Universal Waste bucket.

Thermostat – place in Thermostat Recycling Corporation (TRC) box or in Universal Waste bucket.

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Notes:

- In order to reduce recycling and disposal costs, collection center staff may separate a component containing mercury (e.g., switches, lamps or batteries) from a larger product, or may choose to recycle the entire product. However, please note that glass ampoules removed from products, such as thermostats, must be handled as hazardous waste.
- All mercury items set aside at the facility must be sent to a facility that properly manages mercury components.

For More Information:

- Mercury recycling facilities in the northeastern United States are listed on MassDEP's website: <http://www.mass.gov/dep/toxics/stypes/flampbiz.htm>
- Guidance on cleaning up mercury spills: [placeholder for link]
- Guidance on cleaning up broken fluorescent lamps: [placeholder for link]
- This guidance may change as new recovery opportunities are developed. For the most up-to-date guidance, visit website: [placeholder for link]

October 2007

(attachments continue next page)

Mercury Management Act Public Education and Outreach Plan

The implementation of a disposal prohibition will need to be coupled with an extensive education plan.

Residential Sector

- Develop database to track municipal and commercial locations taking back residentially generated mercury-added products. We will focus on lamps, thermostats, thermometers and button batteries.
 - The database or listing will be made available on the MassDEP website and on Earth911, to be determined.
 - Work to develop relationships with hardware stores to take back lamps to expand the access to lamp recycling. Ongoing.
- Provide information to municipalities for posting on their web site and for use in outreach to their residents
 - DEP letter to municipalities (CEO and recycling contact)
 - Summarize disposal prohibition and relevant parts of MMA
 - Announce transfer station signs to relevant munis
 - Describe TRC program and DEP subsidy for box
 - Provide link to DEP web site for FAQs on implementation of disposal prohibition
 - Link to the MassDEP's Mercury page
 - Develop/revamp fact sheets on:
 - CFLs and mercury, cleanup of broken lamps
 - lists of common mercury-added products found in the home
 - Develop a template press release to advertise local collection options (municipal and commercial)
- Develop public outreach pieces, e.g. OpEd on 'look for the label', 'remove the button cells'
- Promote TRC program for the collection of thermostats, free-of-charge, through municipal locations. Offer to pay for the first box for each municipality.
- Mandated by the statute, we will design and distribute updated waste ban signs to each solid waste facility. Signs were provided to facilities in 2002.
 - Update previous artwork with the mercury ban (list reg citation?)
 - Provide MassCor with listing of facilities
 - MassCor to print and deliver all signs with target delivery of March 2008
- Make presentations at appropriate association meetings
 - Six municipal grant workshops summer 2007
 - SWANA – presentation schedule for Sept. 25
 - Regional MRC meetings – presentation scheduled for Sept 27
 - Covanta Haverhill Quarterly Recycling Coordinator's meeting, Oct 18
 - SWAC – presentation scheduled for Oct 25
 - Mass Municipal Association
 - Public Works association?
 - MORE (Municipalities Organized for Regional Effectiveness)
 - Mass Health Officers Association (MHOA) conference – Jan-Feb 2008

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- MassRecycle's Municipal Recycler's Workshop – Jan 2008
 - Others as identified
- Promote mercury diversion programs offered by MWCs to their long-term contract communities.
 - Focus on communities that do not report mercury
- Publish press release on the Mercury Management Act's latest elements including the disposal prohibition
- UWaste sheds will be awarded late fall through the grant application.
 - Mercury handling training offered to grant recipients and will be open to all municipalities

Commercial Sector

- Through direct mailing package, inform Boards of Health and Building Departments about the disposal prohibition.
 - Encourage adoption of local by-laws and ordinances that require proof of lamp recycling, where used, as part of permit renewal process
 - Provide examples adopted in other communities
- Outreach (press release, newsletter articles and/or presentations) to a variety of stakeholders, such as:
 - Members of the Mass Retailers Association through the associations e-newsletter and other communications
 - Relamping companies
 - State Sustainability listserv
 - AIM
 - MA Food Association
 - General Contractors Association
 - Home Builders Association
 - Green Roundtable/Nexus
 - Colleges and universities –
 - HVAC contractors and applicable associations
 - License electricians/IBEW (coordinate with Division of Professional Licensure at license renewal time?)
 - BOMA (Building Owners and Managers Association)
 - Mass Facility Managers Association
 - School Business Officials
 - Hauler outreach – direct mail, distribution by NSWMA, SW facility handout
 - MA Restaurant Association
 - MA Hospital Association
 - MA Lodging Association
 - Chambers of Commerce
 - Cleaning and janitorial service companies
 - Demolition contractors
 - Appliance recyclers
 - Vehicle recyclers
 - Marinas
- Coordinate with NEMA (National Electrical Manufacturers Association) on outreach to target sectors for lamp recycling.